WHAT WE CLAIM IS:

1. A method of preparing a prepared cell comprising encapsulating said cell in a cell encapsulation medium *in vitro* to form an encapsulation product for use in cell therapy *in vivo* wherein said encapsulation product includes an integrin binding partner.

2. A method as claimed in claim 1, wherein said integrin binding partner is selected from the group consisting of collagen, Fibronectin, Fibrinogen, laminin, thrombospondin, vitronectin, factor X, C3bi, Ig-like cell adhesion molecule (ICAM-1,2,3), type 1 collagen, vascular cell adhesion molecule (VCAM-1), mucosal addressin cell adhesion molecule-1 (MAdCAM-1), vitronectin, collagens, laminin, LFA, Mac-1, tenascin, von Willebrand factor, thrombospondin, factor X, FXIII, FXIIIa, Arg-Gly-Asp, Leu-Asp-Val, His-His-Leu-Gly-Gly-Ala-Lys-Gln-Ala-Gly-Asp-Val, an integrin binding partner containing the sequence Arg-Gly-Asp, Leu-Asp-Val, and an integrin binding partner containing the sequence His-His-Leu-Gly-Gly-Ala-Lys-Gln-Ala-Gly-Asp-Val.

3. A method as claimed in claim 2, wherein said integrin binding partner is Fibrinogen.

4. A method as claimed in claim 2, wherein said integrin binding partner is Fibronectin.

5. A method as claimed in claim 3, wherein said integrin binding partner further comprises Fibronectin.

6. A method as claimed in claim 1, wherein said encapsulation product further comprises FXIII.

7. A method as claimed in claim 5, wherein said encapsulation product further comprises FXIII.

8. A method as claimed in claim 2, wherein said encapsulation product further comprises FXIIIa.

9. A method as claimed in claim 2, wherein said integrin binding partner contains the recognition sequence argine-glycine-asparate (RGD).

10. A method as claimed in claim 1, wherein said integrin binding partner is bound to said prepared cell.

11. A method as claimed in claim 10, wherein said integrin binding partner is bound to said prepared cell prior to encapsulation.

12. A method as claimed in claim 1, wherein said integrin binding partner is not bound to said prepared cell.

13. A method as claimed in claim 1, wherein said integrin binding partner is in said cell encapsulation medium.

14. A method as claimed in claim 1, wherein said integrin binding partner is at the surface of said cell encapsulation medium.

15. A method as claimed in claim 1, wherein said cell encapsulation medium is selected from the group consisting of agarose with fibrin, agrarose with Fibronectin, a combination of Fibronectin and Fibrinogen, plant-derived gums, alkali metal alginates and agarose, cellulose and its derivatives, gelatin, chitosan and extracellular matrix (ECM) components.

16. A method as claimed in claim 1, wherein said cell encapsulation medium is a natural polymer compatible with the survival and function of said cell.

17. A method claimed in claim 1, wherein said cell encapsulation medium is a synthetic polymer compatible with the survival and function of said cell.

18. A method as claimed in claim 1, wherein most of said encapsulation product comprises one prepared cell per encapsulation.

19. A method of preparing a prepared cell for use *in vivo* comprising encapsulating said cell in a cell encapsulation medium *in vitro* to form an encapsulation product, wherein said encapsulation product includes an

integrin binding partner, and wherein said encapsulation product contains one cell.

20. A method of preparing a prepared cell for storage or transportation for later use *in vivo* comprising encapsulating said cell in a cell encapsulation medium *in vitro* to form an encapsulation product, wherein said encapsulation product includes an integrin binding partner.

21. A method as claimed in claim 1, wherein said cell encapsulation medium contains a transgene

22. A method as claimed in claim 1, wherein said prepared cell contains a transgene.

23. A method as claimed in claim 22, wherein said transgene is incorporated into the cell subsequent to including the transgene in said encapsulation medium.

24. The use of a prepared cell of claim 1 for cell therapy by administration to a patient in need thereof.

25. The use as claimed in claim 24, wherein said administration is intercardiac.

26. A method as claimed in claim 1, wherein said encapsulation product further comprises an external factor which can effect a host cell which is external to the encapsulation product.

27. A method as claimed in claim 26, wherein said external factor is selected from the group consisting of DCAM, ICAM and VCAM.

28. A method as claimed in any one of claims 1 to 23 or 26 or the use as claimed in claim 24 or 25 wherein said cell is selected from the group consisting of fibroblasts, endothelial cells, smooth muscle cells, progenitor/ stem cells (e.g. from bone marrow, adipose, or peripheral blood), dermal fibroblasts, EPC (endothelial progenitor cells) or other mesenchymal cells, marrow stromal cells (MSC), and epithelial cells.

29. A method as claimed in any one of claims 1 to 23 or 26 or the use as claimed in claim 24 or 25 wherein said cell is selected from the group consisting of fibroblasts and bone marrow stromal cells.

30. A kit for cell based therapy in a mammal, comprising an effective amount of an integrin binding partner and instructions for the use thereof to prepare a cell encapsulation medium.

31. A kit according to claim 30, wherein said instructions further describe administration to a patient in need thereof.

32. A kit according to claim 31, wherein said instructions describe administration by cell based gene therapy.

33. A kit according to claim 30, further comprising an encapsulation medium.

34. A kit according to claim 32, wherein said instructions describe administration using viable, transfected mammalian cells, said transfected mammalian cells containing at least one expressible trans-gene coding for an apoptosis inhibitor.

35. A kit according to claim 34, wherein said mammalian cells are selected from the group consisting of dermal fibroblasts, smooth muscle cells, progenitor cells, endothelial progenitor cells, epithelial progenitor cells, smooth muscle progenitor cells, stem cells, and endothelial cells.

36. A kit according to any one of claims 30 to 35, wherein said integrin binding partner is selected from the group consisting of collagen, Fibronectin, Fibrinogen, laminin, thrombospondin, vitronectin, factor X, C3bi, Ig-like cell adhesion molecule (ICAM-1,2,3), type 1 collagen, vascular cell adhesion molecule (VCAM-1), mucosal addressin cell adhesion molecule-1 (MAdCAM-1), vitronectin, collagens, laminin, LFA, Mac-1, tenascin, von Willebrand factor, thrombospondin, factor X, FXIII, FXIIIa, Arg-Gly-Asp, Leu-Asp-Val, His-His-Leu-Gly-Gly-Ala-Lys-Gln-Ala-Gly-Asp-Val, an integrin binding partner containing the sequence Arg-Gly-Asp, Leu-Asp-

Val, and an integrin binding partner containing the sequence His-His-Leu-Gly-Gly-Ala-Lys-Gln-Ala-Gly-Asp-Val.

37. A kit according to any one of claims 30 to 36, wherein said cell encapsulation medium is selected from the group consisting of agarose with fibrin, agrarose with Fibronectin, a combination of Fibronectin and Fibrinogen, plant-derived gums, alkali metal alginates and agarose, cellulose and its derivatives, gelatin, chitosan and extracellular matrix (ECM) components.